

Customer No.: 31561
Application No.: 10/065,566
Docket No.: 9747-US-PA

To the Claims:

Claim 1 (currently amended) A driving circuit for a display device having a plurality of pixels, wherein the driving circuit is used for driving the light-emitting device in each pixel, the driving circuit comprising:

a light-emitting device driving unit coupled to the light-emitting device for providing a driving current to the light-emitting device selectively; and

a discharging unit coupled to a point for connecting the light-emitting device driving unit for discharging the light-emitting device according to [the] a voltage level of a control signal.

Claim 2 (original) The driving circuit of claim 1, wherein the driving circuit may further include a light-emitting device selection unit coupled to the light-emitting device driving unit for receiving a scan signal and a data signal, and when the scan signal and the data signal are at logic level '1', the light-emitting device selection unit enables the light-emitting device driving unit to provide a driving current to the light-emitting device.

Claim 3 (currently amended) The driving circuit of claim 2, wherein the control signal uses the scan signal from the next pixel, the discharging unit discharges the light-emitting device in response to a logic state of the scan signal from the next scan line immediately as soon as the light-emitting device driving unit providing a driving current to the light-emitting device of the next pixel, the discharging unit discharging the light-emitting device.

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Claim 4 (original) The driving circuit of claim 3, wherein the discharging unit discharges the light-emitting device when the scan signal on the next pixel is at a logic level '1' or a high voltage level.

Claim 5 (original) The driving circuit of claim 1, wherein the discharging unit is coupled to a ground potential so that electric charges are discharged from the light-emitting device to the ground.

Claim 6 (original) The driving circuit of claim 1, wherein the discharging unit is coupled to a negative voltage so that electric charges are discharged from the light-emitting device to the negative voltage terminal.

Claim 7 (original) The driving circuit of claim 1, wherein the discharging unit is a transistor and the transistor is switched on to discharge the light-emitting device according to the voltage level of the control signal.

Claim 8 (original) The driving circuit of claim 7, wherein the gate terminal of the transistor is connected to the control signal terminal and the drain terminal of the transistor is connected to a ground potential so that electric charges in the light-emitting device discharge to the ground when the transistor is turned on by the control signal.

Claim 9 (original) The driving circuit of claim 7, wherein the gate terminal of the transistor is connected to the control signal terminal and the drain terminal of the transistor is connected to a negative voltage terminal so that electric charges in the light-emitting device discharge to the negative voltage terminal when the transistor is turned on by the control signal.

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Claim 10 (original) The driving circuit of claim 1, wherein the light-emitting device includes an organic light emitting diode (OLED).

Claim 11 (original) The driving circuit of claim 1, wherein the light-emitting device includes a molecular light-emitting diode.

Claim 12 (currently amended) A display device having a plurality of pixels, wherein each pixel has a driving circuit for driving the light-emitting device inside each pixel, the driving circuit comprising:

a light-emitting device driving unit coupled to the light-emitting device for providing a driving current to the light-emitting device selectively; and

a discharging unit coupled to the light-emitting device driving unit for discharging the light-emitting device according to [the] a voltage level of a control signal.

Claim 13 (original) The display device of claim 12, wherein the driving circuit may further include a light-emitting device selection unit coupled to the light-emitting device driving unit for receiving a scan signal and a data signal, and when the scan signal and the data signal are at logic level '1', the light-emitting device selection unit enables the light-emitting device driving unit to provide a driving current to the light-emitting device.

Claim 14 (currently amended) The display device of claim 13, wherein the control signal uses the scan signal from the next pixel, the discharging unit discharges the light-emitting device in response to a logic state of the scan signal from the next scan line immediately as seen as the

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~~light-emitting device driving unit providing a driving current to the light-emitting device of the next pixel, the discharging unit discharging the light-emitting device.~~

Claim 15 (original) The display device of claim 14, wherein the discharging unit inside the driving circuit discharges the light-emitting device when the scan signal on the next pixel is at a logic level '1' or a high voltage level.

Claim 16 (original) The display device of claim 12, wherein the discharging unit inside the driving circuit is coupled to a ground potential so that electric charges are discharged from the light-emitting device to the ground.

Claim 17 (original) The display device of claim 12, wherein the discharging unit inside the driving circuit is coupled to a negative voltage so that electric charges are discharged from the light-emitting device to the negative voltage terminal.

Claim 18 (currently amended) A method of driving a display device by a driving circuit, wherein the display device has a plurality of pixels and the driving method is used for driving the light-emitting device inside each pixel, the driving method comprising the steps of:

providing a driving current to one of the light-emitting devices selectively; and

discharging the light-emitting device according from a point for connecting the light-emitting device and the driving circuit to [the] a voltage level of a control signal while the light-emitting device is driven by a driving current.

Claim 19 (original) The driving method of claim 18, wherein the step of providing a driving current to one of the light-emitting devices selectively includes providing a driving

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current to the light-emitting device when a scan signal and a data signal sent to the display device are at a logic level '1' or a high voltage level.

Claim 20 (original) The driving method of claim 19, wherein the control signal is provided by the scan signal of the next pixel in the display device.

Claim 21-23 (canceled)